"from *warnba*" (the people of the west) entered the area principally from the south-west, by way of the Raimbaräna tribe, members of which have long been in the habit of travelling down to outlying cattle stations and even to the overland stock route, and that this food then came east.

Again, the most characteristic type of spear in use throughout Arnhem Land, including the northern shoreline, is *ŋämbi*, a hunting and fighting spear with a detachable flint head, (see frontispiece), *ŋämbi lirra*, (*lirra*, lit. tooth), mounted with hard beeswax and not with resin. There are only two quarries from which flint spear heads are derived, but the best, the ones properly called *ŋämbi*, come from the quarry at *ŋillipidji*, in the hills near the Walker River in the hinterland of Blue Mud Bay. From this one quarry, of almost legendary renown, come most of the flint spear heads of Eastern Arnhem Land. These *ŋämbi lirra* are generally passed from hand to hand encased in a neat sheath of *Melaleuca* bark (*bärukälla*) called *djalk*—a name applied only to the sheath of this one type of spear and giving its name to *kumur djalk*, the quarter (*kumur*) from which these spear heads enter and of which they are the most characteristic feature. Great bundles of these fine spear heads pass from hand to hand throughout Eastern Arnhem Land, and even farther away to the south, beyond the Roper River, as well as to the west across the Liverpool. The second quarry, mentioned above, is located in the

ironwood and which has now become elevated to the level of clan totem. In bygone days glass bottles which were occasionally washed up on the beaches possessed special social value as material for scraps and cutting implements. Similarly the wooden Malay anchor, with a single fluke, which was used by early visitors who came to Arnhem Land from the Celebes, has acquired a symbolic significance which is quite distinct from its original material value as the anchor (*luku*, lit. the foot) of a prau.

THE SECOND QUARRY, MENTIONED ABOVE, IS LOCATED IN THE
411 Liverpool area, but spear heads from this source are regarded
431 as much inferior to the *ŋämbi*, and are also known by a
[316]
[135] distinctive name.

166 This much even the newcomer, who has his eyes about
431 him, sees for himself. It is clear that *gerri* circulate freely in Arnhem Land and far beyond, that the movements of certain special elements of material culture are extensive, and that they are not dependent upon the entry of the white man or the breaking down of the culture. As we have seen, the movements of the people themselves are restricted generally to their own clan territories and to those of a few neighbouring groups with whom a special relationship has been established, except on certain ceremonial occasions, or on *miriŋo* (war-making or avenging) expeditions. At other times they do not move very far afield, or at least they did not do so in former times. And again, we have seen that the very nature of the social organisation, the division of the whole of the territory among totemic clans each with its own intense internal solidarity and its equally strong opposition to other clans, was calculated to hinder and restrict, rather than to encourage, free intercourse between clans whose territories lay any distance apart.

431 How then are the *gerri* which bear, unmistakably, the stamp of origin in far away territories, actually circulated? By what means are they passed from group to group, and what is the motive force which brings boomerangs as well as other elements foreign to this culture at least two or three hundred miles from their place of origin, into a territory where their very function is lost? What, again, causes parcels containing *ŋämbi* to be brought considerably more than a hundred miles from the quarry where they were made? How do pounding and grinding stones, which are

114 ture of the natives of North-eastern Arnhem Land showed
177 a resistance to the influence of this virile culture from Indonesia, and certainly none for the statement that the ideas of these people were "no different from what they were before he (the Malay seafarer) arrived . . ."

121 I do not propose here to attempt a full review of the in-
177 fluence of the Indonesian culture on the ceremonial life of these people, but merely to show its effect on the ceremonial exchange cycle and the economic system which accompanies it.

177 That this influence was extensive is proved beyond ques-
192 tion by the fact (see pp. 67, 68f) that the term *muadäk*,
431 which gives its name to *kumur muadäk*, the northern sec-
439 tor of the exchange cycle, is the collective or generic name given by the natives to all the *gerri* which they obtained formerly from the Macassar visitors, of which the chief items are knives, axes of the type called *luŋa linya*, nails (for fish hooks etc.), fish hooks and lines, bottle glass (for scrapers), tobacco, smoking pipes (*pämatukka*), belts, wooden dugout canoes, (*lippa lippa*), beads, (*männi-männi*), and material such as calico, blankets, string and later, wool, to which the collective term *mäthäkäl* was applied.

114 When Professor Warner contrasts the ease with which an
324 Arnhem Land native acquired an iron axe from the Malays,
● 135 with the labour involved in the making of the (admittedly)
431 much less efficient and satisfactory stone axe, he overlooks
463 certain important factors. First, that stone axes, like flint spear heads, are made from special stone which occurs only in restricted areas, and that while any man who merely uses an axe to get wild honey, can grind the edge, the implement itself is usually made initially by a craftsman, a specialist in the working of the stone who lives in the country in which it occurs, and like the smooth hard

9: Thomson E-5 (1935-1943)1949
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pounding stones called *poipuro* (page 71) it is exported as *gerri* within the ceremonial exchange system.

It is part of my thesis to show that an important function served by the ceremonial exchange cycle is in supplying this incentive, this motive for fine craftsmanship, the anticipation of the ritual and pageantry, by adding romance or "glamour" to work which would otherwise be drudgery. A man does not as a rule set out to manufacture a stone axe as he may a fish spear or a hunting spear, to satisfy an immediate need. Such an implement requires hours, even days, of grinding and polishing after the preliminary rough shaping of the hard stone. But, as it has been pointed out, these axes are made by a craftsman who probably learned the craft from his father and are accumulated as *gerri* which will be presented on some future ceremonial occasion to "pay back" a present that the maker has received from one of his exchange partners, or they are used to create an obligation which his partner will later discharge.

The stone quarry at ŋillipidji where *ŋämbi lirra* are made, covers acres of ground, and hundreds, perhaps thousands, of spear heads come from the quarry in the course of a year. Like the stone axe heads, these flint heads are not made for immediate use, but are passed from Wagilläk territory—in bundles of a dozen or so, each wrapped neatly in the paperbark sheath called *djalk*—to reciprocate ceremonial presents of *muadäk*, or to build up goodwill and prestige. Big bundles are sent north and north-west, in the knowledge that they will be reciprocated ultimately with other *gerri* of a traditional kind and of at least equivalent value.

From the orientation of a man of Mildjiŋi clan of the Glyde River, the people to the north who occupy the territory along the northern shoreline, at Glyde Inlet, and Banyan

136

136 FAUNA--principal native species, especially mammals, reptiles, birds, fish and shellfish, insects, and disease-bearing micro-organisms; historical changes (e.g., introduced species); etc. See also:

Hunting, fowling, and fishing 22
Animal husbandry 23
Ethnozoology 825

1: Warner E-5 (1926-1929)1937
OI 17 Murngin OI 17

133 alkaline plains and approaches the marshy lakes that are abundantly
137 present in the rainy season and frequently absent in the dry period. The acacia and the eucalyptus are familiar and frequent in both the low and the high lands, and spear grass covers the land in dense growths during the months of rain.

●136 The animals, with certain minor variations, are the usual marsupials and monotremes found in Australia, with the bat and wild domestic dog the only mammalia living in the region. Nature is bountiful with
[262] many varieties of birds, fish, and other animals; but vegetable foods, although plentiful, are limited in variety.

144 The Murngin people belong to the aboriginal Australoid race found throughout Australia—not Mongoloid, Negroid, or Caucasian, but a variant group which seems to be a blend of many of the features of the
[197] white and black races.[2] Their language is one of the Australo-Dravidian linguistic group. They belong to a Stone Age culture; were they placed
105 in our own chronology, their technological development would fall somewhere between the Old and the New Stone Ages.

The Murngin civilization is a simple Australian culture with a small hunting and gathering population which lives off the sea and the land. The natural environment which surrounds it and drastically affects native behavior consists of *two changes which make up the yearly cycle*; one of these is extremely rainy, producing a period of scarcity, and the other a dry period when there is an abundance of food. The technology can be described briefly as the adaptive mechanisms of the general society to these two parts of the cycle of nature.

614 The social organization must be given in a more detailed description.
423 The fundamental basis of the society is an elaborate kinship[3] system in which everyone is related to everyone else. This kinship system is organized into more general units which are patrilineal,[3] exogamic[3] clans[3] which have local territories that were "given to them by the totems."[3] All parts of the clan land have totemic references. Each clan has multiple totems; all clans have at least one, possibly more, sacred water holes where live the high totems, the totemic ancestors, the ancestral dead, and the totemic spirits of the unborn. The names of all clansmen have totemic significance, and the whole general totemic pattern is related to the clan.

[101] [2] See Appendix VII.—The term "Black" in the title of this book, *A Black Civilization*, is not to be interpreted as describing these people as purely Negroid. The term refers, rather, to their popular name, "Australian Blacks," and to the name they accept for themselves from the Australian whites, "Blackfellows."

[3] See Glossary of Technical Terms, page 566.

1: Warner E-5 (1926-1929)1937
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macerated and placed in the pool. Some of the writer's informants claim that a poison grass is used similarly.

A fish is cut in halves the long way and cooked immediately because it is believed that if a bit old when eaten it causes leprosy (but see Magic, page 207).

Oysters, periwinkles, and the many varieties of bivalves gathered by the women are cooked on the shore at the spot where they are collected. A fire is made over stones and the shellfish put on the hot stones and embers. The shells open or crack and the flesh is removed and eaten by the women or placed in small receptacles to be carried home to the men.

Honey is gathered by both sexes, but usually by men. When a hive is discovered in a hollow tree that is not too large the tree is cut down and the trunk split open. The honey is usually eaten where found. Gathering honey is a painless task in Australia because the native bees are stingless. The honey is often put in a water-tight basket, mixed with water and drunk as a beverage. It is never allowed to ferment; the natives have no intoxicating drink. The wax is formed into a ball and put in the men's baskets to be used in the construction of various implements.

Pandanus fruit, ripening about August, is cut up into fine pieces and cooked. The small cabbage palm is gathered about the same time, the whole trunk of the plant being cooked and beaten on a log, and the glutinous product eaten. Spear grass is chewed by the children as well as the other people.

Cycad palm nuts are gathered from the center of the trees by the women with the aid of a forked stick placed against the trunk to make a rough ladder. The nuts are knocked off with a club if they are too high to reach. The outside skin is removed and the kernels are placed in a large basket which is submerged in a fresh-water pool and allowed to remain several days until the poisonous qualities of the green fruit are removed. Sometimes the women first heat the nuts, thus reducing the time for soaking them.

Several varieties of tree grubs are eaten. Both men and women gather them. They select trees which have the proper indications upon them, split open the trunk, and remove the grubs which are washed and eaten raw. They look much like the entrail of a fowl and taste much like a snail.

The nests of all the larger birds are robbed and the eggs eaten. During the proper season the various sea birds lay their eggs in great

3: Mountford E-5 (1948) 1956 OI17 Murngin OI17

*773 woman, *Walo*, and daughter, *Bara-bararinja*, behind. On their way the brother and sister passed and named Urapingboi, Bauadi, Garangaranbi, Kakoubi, Waipingboi, Takalpa and Bilapinja Islands.

When passing Takalpa Island *Djunkgao*, hearing the calls of the flying foxes, *maiakou*, picked up his music sticks[17] and made a song about these creatures and their calls.

Djunkgao beached his canoe on the sandy shore of Bilapinja Island, and on looking back saw his wife, the sun-woman, sending out great banners of light across the eastern sky as she rose from her camp at Tjurinjina in readiness for her daily journey. The light from the sunrise was, in turn, reflected from the crests of the waves as they broke on the shore. The spectacle pleased *Djunkgao* so much that he composed a series of songs about the sunrise, the reflected light from the waves and the sounds made by the waves as they rushed across the sand.[18] He also decreed that the sunrise and the light on the waves should be both his 'mark' and that of his descendants forever.[19]

● [136] *Djunkgao* made another song when he heard the harsh call of the black cockatoo, *natili* (*Calyptorhynchus banksi*), and two more at Waipingboi Island, one describing a hawksbill turtle, *kouraradji*, he saw floating on the surface of the water, the other about the oyster-catcher, *kalaka*, seated on a rock.[20]

As *Djunkgao* and *Madalait* were paddling along the shores of Aparina Island, near the entrance of Port Bradshaw, he was attracted by the beauty of the light reflected from the ridges on the sea-shore and the meandering lines left on the wet beach by the sand-dollars.[21] Again, these were the subject of a song. At Aparina, the *Baijini*[22] were cooking trepang on his, the *dua*, side of the island. *Djunkgao* ordered them to leave, made a song about the incident and taking two of the paddles from the *Baijini* as a punishment, crossed the sea to Jelaingbara, a place north of the entrance to Port Bradshaw.[23]

As the two ancestors walked inland, they admired the lines of sand-hills at Jelangbara which, they thought, resembled the waves of the sea. *Djunkgao* also noticed a *dua* lizard, *tjunda*, walking along the crest of one of the drifting sand-hills, and the lines of sand that ran down either side of the sand-hill from under his feet. He made songs about these incidents, and, at the same time, decreed that whenever the *dua* men of that locality painted the design of the lizard, *tjunda*, they must always include the parallel marks of the running sand.[24]

Djunkgao and *Madalait* always carried a digging stick in each hand which they pushed into the ground as they went along.[25] At Jelangbara, *murinja* trees (*Casuarina equisetifolia*) still grow at those places. At the end of the day, the

17. Pl. 132E, F, illustrates the music stick of *Djunkgao*.
18. Bark painting, Pl. 85E, left-hand panel.
19. Bark painting, Pl. 85E, left-hand panel.
20. Bark painting, Pl. 85A.
21. Pl. 88D.
22. Pl. 87B.
23. Bark painting, Pl. 85B.
24. Bark painting, Pl. 86D.
25. In other localities, the holes made by the digging sticks became sacred wells. Pl. 85E, right-hand side.

3: Mountford E-5 (1948) 1956 OII7 Murngin OII7

brother and sister made their respective camps some distance apart by pushing back the sand-hills.[26] Next morning *Djunkgao* and *Madalait* moved westward and, according to the Yirrkalla informants, again made camps at Arnhem Bay,[27] Napier Peninsula,[28] Milingimbi,[29] Goulburn Island,[30] and Cape Don.

The aborigines of the *dua* moiety produced fourteen bark paintings, two carved figures and five decorated ceremonial objects,[31] all dealing with the myth of *Djunkgao* and *Madalait*.

Djunkgao at Bilapinja Island

The left-hand side of Pl. 85E and the upper panel of Pl. 86C describe the sunwoman, *Walo*, rising from her camp at Tjurinjina at the same time as *Djunkgao* and his sister, *Madalait*, beached their canoe on Bilapinja Island.[32] The diagonal lines are the rays of light from the sunrise, and the parallel lines, the light reflected from the crests of the incoming waves. The bands of yellow, black and white across the disc of the sun are symbolic of the red-feathered string ornaments which the sun-woman wore round her head and waist as she travelled across the sky.

Djunkgao at Waipingboi Island

As *Djunkgao* and *Madalait* were passing Waipingboi Island the former made a song about a hawksbill turtle, *kouwaradji*, in the water, and an oyster-catcher, *kalaka* (*Haematopus ostralegus*) seated on a rock. The turtle is now a boulder which is submerged at high tide, and the oyster-catcher a tall pillar of rock projecting above the water.

On the upper panel of Pl. 85A is the hawksbill turtle, and below, the oyster-catcher. The cross-hatched panels symbolize the seas breaking over the totemic rocks.

Djunkgao and the Sand-dollars at Aparina

When *Djunkgao* was paddling along the coast of Aparina Island he noticed the light reflected from both the ridges left in the wet sand by the receding tide and the marks made by the sand-dollars (*Laganum depressum*) as they moved along the wet beach.

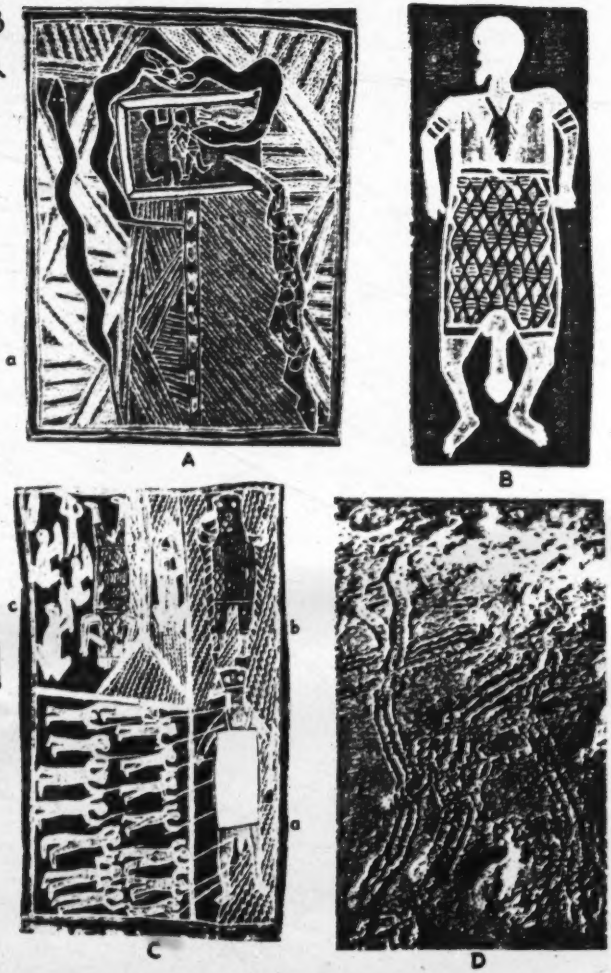
The panels of dots on Pl. 85D are the sand-dollars, which are still numerous in that locality, and the cross-hatched panels, the light reflecting from the ridges on the beach made by the sand-dollars.[33]

Djunkgao and the Baijini at Aparina Island

When Djunkgao and his sister landed on Aparina Island they found that the *Baijini*[34] (who were *jiritja* people) were cooking trepang on the *dua* half of

26. Bark painting, Pl. 85E, right-hand panel.
27. Bark painting, Pl. 87C.
28. Bark painting, Pl. 87A.
29. Bark painting, Pl. 87D.
30. Bark painting, Pl. 86E.
31. Described in Part 5.
32. The right-hand side of Pl. 85E will be described on p. 273.
33. Pl. 88D shows the tracks of sand-dollars.
34. The *Baijini* were a fair-skinned people who came to Port Bradshaw to collect trepang. They are now included in the mythological stories, p. 333.

*773
* 532



[136]

PLATE 88. Bark paintings, Yirrkalla
A The Wawalik sisters B Laitjun C Banaitja
D Marks of the sand-dollars at Aparina

3: Mountford E-5 (1948) 1956 OI17 Murngin OI17

filling the panel *e*, symbolizes the bush-fire.[86] They also represent the white-barked eucalyptus trees, *garnai*, once the men who took part in the ceremony. On panel *f* are the paper-bark trees of the Matamataui swamp, and on panel *g* the hive of wild bees which escaped to Milingimbi. The diamonds indicate the paper-bark trees at Matamataui.[87]

Plate 93D is another representation of the bush-fire on the Gainmaui River. On the two lower panels are nine camp-fires, the circles representing the fire and radiating cross-hatched lines the logs of wood on the fire. The two large circles, with a human figure inside, are bark huts, each having a camp-fire at the entrance. The parallel cross-hatched bands at *a* represent a stack of firewood, the longitudinal band, *b*, the Gainmaui River and the cross-hatched band, *c*, a nearby range of hills. The area destroyed by the fire is represented by the two upper panels, the curving parallel lines to the left being a tributary of the Gainmaui River.

Aborigines Gathering Eggs of Sea-birds

This painting deals with the time when two groups of aborigines, in their canoes, went to an island where the sea-birds nested. They gathered many eggs and brought them back to camp.

Plate 93C illustrates some of the incidents of that journey. The left-hand panel is the island covered with nesting sea-birds. The birds on the left are sitting on their eggs, while those on the right adjacent to two men are in flight. The numerous white dots are eggs. On the left-hand side, near some of the nests, are fish which the birds have brought in to feed their young. On the right are two canoes, loaded to the gunwale with eggs (white dots). The two rectangular cross-hatched areas in this panel represent rough water which almost swamped the canoes. The three dolphins, lower right, were seen on the outward journey.

The Man, Walanwanga, at Garawinu Island

During creation times a mythical *dua* man lived on a small island, Garawinu, east of Woodah Island.

Walanwanga, who was skilled in fishing and hunting, was successful in capturing many dolphins, fish, water-snakes and green turtles. Since that time, there has always been an abundance of those creatures at Garawinu Island.[88]

On the upper and lower panels of Pl. 91A are five dolphins, *indjapana*, and between them three water-snakes, *jalu*; the small fish are unidentified. In the central panel are five green turtles, *gariwa*. The ovals above and below are rocks that project from the sea, the haunt of many green turtles, and the transverse lines, *a* and *b*, reefs of rock outside Garawinu Island.

86. The design of the *gumaitj mata* of Caledon Bay. Fig. 63M. The same fire symbol was painted in the body of an initiate during a circumcision ceremony at Yirrkalla, Pl. 129C.

87. The design of the *dalurunga mata* of Blue Mud Bay. Fig. 63J.

88. This is a parallel myth to that of the *jiritja* island of Garabi, off the coast of Port Bradshaw, p. 378.

that they can help the spirits of the newly dead on their journey to Nalkuma, *Wulu-wulu* giving them the bean of the *menin* tree,[90] a passport into the *jiritja* heaven, and *Kultana* assisting to paddle them across the sea to their future home.[91]

The Mokoi and the Turtle Hunt

Plate 110E is the story of a turtle hunt by some of the *Mokoi* who had paddled in a wooden canoe from Nalkuma to Cape Arnhem, and the incidents connected with the hunt.

The three *Mokoi* paddled through rough water (four cross-hatched rectangles, *a*, on left of right-hand panel) to reach a group of rocks (squares with diagonal lines at *b*) so that they could spear the turtles living among those rocks. On their way the spirit-men saw a devil-ray, *b* (*Daemonata alfredi*).[92] The large gills are shown as slits, and the fat within the body as a crescent. In the left panel are dugongs, *merinjunga*, feeding on the submarine grass, *gumata*. The fish are *tinimbu*, queen fish, and squares with diagonal lines, rocks in the sea frequented by the turtles, upper edge.

The Mokoi and the Dugong, Merinjunga

Two mythical dugongs, *merinjunga* (*Dugong australis*), which once lived in the sea at Cape Arnhem were continuously being pursued by the *Mokoi* who came from the *jiritja* heaven, Nalkuma. The *Mokoi*, however, were not always successful because, just as they were about to spear the creatures, a storm would develop and allow the dugongs to escape.[93] Later the canoe was transformed into a large rock on the sea coast between Cape Arnhem and Port Bradshaw, and the dugongs into a rock in the water near by. The place of the stingray, which also appears in the painting, is a hole in the ground. When travelling in their canoes the aborigines will not go near the totemic place of the dugong, for if they did the dugongs would send up so much smoke and fire that they would be destroyed.

On the land, near this totemic place, is a paper-bark tree, once a dugong, which resembles that creature in appearance, and near by is a termite mound also a transformed dugong. When the aborigines wish to increase the supply of dugongs at a particular locality they take a branch from the dugong tree and a piece of earth from the termite mound and throw them both into the fire. When the wood is burnt to ash the men take the heated termite earth from the fire, pound it into dust, mix it with the wood ash and throw the mixture into the sea where the dugongs feed. This dust from the totemic tree and the termite mound will create many dugongs in that locality.[94]

90. Pl. 100C. 91. Myth, p. 331.

92. This huge, cumbersome but harmless sea-creature sometimes reaches a length of fifteen feet and a weight of a ton.

93. Dugongs can only be captured on windless days when the sea is calm.

94. This increase ritual is not unlike that carried out at the increase centre for parrot-fish at Winchelsea Island, p. 84.

3: Mountford E-5 (1948) 1956 OI17 Murngin OI17

*773 *532 changed themselves into plovers and flew to another country so that they would not meet him again. The totemic place, Niliala, of the echidna is now a line of rocky cliffs on the sea coast, a few miles south of Port Bradshaw.

The painting, Pl. 113B, is divided into two parts. The lower relates to the mythical story of the plover and echidna-men of creation times, and the upper to the present-day creatures.

In the lower left-hand corner, at *a*, is the echidna-man, *Tjiramuna*, and his two wives. At *b*, they are asleep under a tree, shown to the left. At *c* are the plover-men, *Tjutju*, casting their spears at the unfortunate echidna-man. The small oval to the lower right of the dead echidna-man is his camp-fire. In the upper portion of the painting, the echidna and his two wives, in black, occupy the central panel, and the plovers are on the extreme left. The cross-hatched area *d* indicates the rocky cliffs of the totem place, Niliala, of the echidna-man.

The Wallaby, Moutia, and the Cockroach, Borok

*773 This myth explains how the sea became salt, the origin of the swamps in Arnhem Land, the jungle wallaby and the cockroach.

823 During creation times a wallaby-man, *Moutia*, and his wife, *Borok*, lived near Melville Bay. One day the couple filled four bark dishes with water from the sea, which in those days was fresh, and placed them in the jungle to keep cool. *Moutia* then asked his wife if she would remove some of the vermin from his hair. She agreed and, with the head of *Moutia* in her lap, spent some time at the task. When she had finished she asked *Moutia* if he would do the same for her, but he refused very rudely, saying that he was too tired and wanted to sleep. This so infuriated the woman that she quarrelled violently with her husband. Then, to punish him further for his discourtesy, she waded into the sea, their only source of fresh water, and urinated to make it salt.

But, so that she would not suffer hardship from her own action, *Borok* transformed herself into a cockroach (probably a terrestrial *isopod*).[12] When the husband, *Moutia*, saw what had happened he, in turn, changed himself into a wallaby and hopped to Meleton Island in Melville Bay.

Borok, in her anger, had thought to deprive her husband, and, consequently, the rest of creation, of fresh water. But her plans for vengeance miscarried because she had forgotten the four bark dishes filled with fresh water which she and her husband had left in the jungle. That water was transformed into the extensive swamps of eastern Arnhem Land, the source of many of the rivers which flow into both the Gulf of Carpentaria and the sea on the northern coasts of Australia.

*773 *532 The four boat-shaped objects on the left of Pl. 113C are the bark dishes which *Moutia* and his wife filled with water and placed in the jungle. In the centre of the painting is *Moutia* with his head in the lap of his wife, and on the

●[136] 12. This creature, which lives under bark or dead trees in the jungles, is able to exist on the moisture gathered from its environment.

A Hunting Scene

224 *532 This bark painting, Pl. 114C,[15] illustrates the experiences of an aboriginal who went out to spear kangaroos near Biluitja, a place about four miles west of Yirrkalla. In the upper right-hand are the lines of paired footprints of men and kangaroos. Whilst chasing the kangaroos, the hunter saw an emu, *kadbarait*, standing in the grass (cross-hatching), eating the blossoms from a low shrub, called *wari*, and further along, a fresh-water goanna, *bije* (upper left), running through the grass (cross-hatching).

Creatures at Bartalumba, Groote Eylandt

*532 Plate 114D[16] pictures the country adjacent to the Bartalumba headland, western Groote Eylandt.

Reading from the bottom, the anvil-like figure in the middle of panel *a* is a large cloud over the Bartalumba hills; bottom right is a diagonal line of birds, and above them at *b*, small clouds and rain. On the lower left edge at *c* are seven casuarina trees, with three pigeons above them. Over the central transverse cross-hatched panel, *d*, is another line of birds. The main anvil-shaped design at *e*, in the upper panel, is a cumulus cloud with rain (cross-hatching) falling from its lower edge. There are four cycad palms at *f*, in the upper left, with three pigeons roosting in the branches and three grasshoppers in flight. In the upper right, *g* is another group of cycad palms, and below them at *h*, two women, *Nabililangu* and *Wurati-laku*,[17] with their carrying-baskets (rectangles) and digging sticks beside them.

[482]

Kangaroos, Emus and Goannas

● 136 *532 There is no mythological story associated with the two bark paintings, Pl. 115A, D. They depict kangaroos, emus and goannas in every-day surroundings.

In the upper panel, Pl. 115A, is a kangaroo lying in the shade of a tree, after it had eaten a meal from the leaves of a yam, depicted as torpedo-shaped designs to the right of the creature. At *a* and *b* are two similar plants. The cross-hatched vertical band between them indicates a well-worn track made by other kangaroos. The kangaroo footmarks to the left are newly made.

Plate 115D shows a number of creatures which live round a lagoon called Doraka, situated several miles west of our base camp at Yirrkalla. Doraka lagoon is the oval in the centre, and above is a number of male and female emus and their tracks. In the lower left are two red kangaroos, the paired tracks of one of them being shown in the extreme lower left. On the lower right are four fresh-water goannas, *bije*.

The Whale, Dianmeri

*773 225 This myth tells about three aboriginal fishermen, a whale and the death of one of the fishermen.[18]

15. Interpretation by F. D. McCarthy. 16. Interpretation by F. D. McCarthy.
17. See carved figure of *Wurati-laku*, Pl. 135C, D; myth, p. 436.
18. These men were distant relatives of *Mawulan*, the artist who produced this bark painting.

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+532

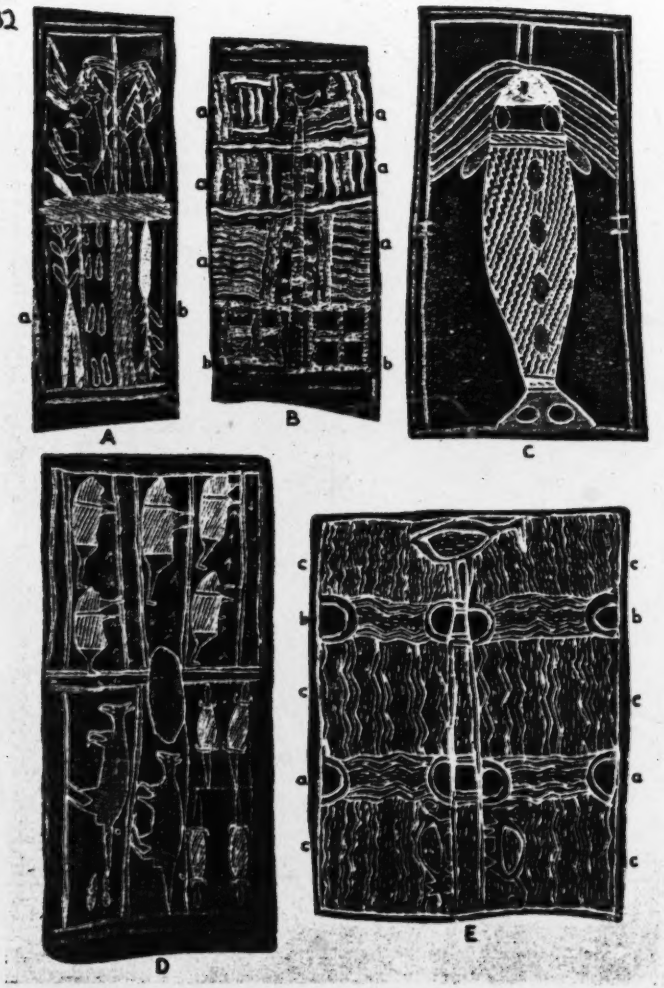

PLATE 115. Bark paintings, Yirrkalla

A, D Kangaroos, emus and goannas C The whale, dianmeri
B, E The night-bird, karawak, and and the opossum, marungo

3: Mountford E-5 (1948) 1956 OII7 Murngin OII7

*773
225

The three aborigines, having between them made a new rope and spear, set out in a canoe to capture a turtle. They speared one, and hauled it to the surface, but were unable to pull the turtle close enough to the canoe to kill it. One of the aborigines had just jumped overboard to push the turtle within reach of his companions, when two large whales surfaced, one on either side of the canoe, almost swamping it. The men in the canoe, fearful of what might happen to [501] their companion, told him to swim under the canoe, and enter it over the stern, the usual way. But when he did so he dived into the mouth of one of the whales. As the creature surfaced, the aborigines saw the legs and buttocks of their companion protruding from its mouth.

Although the first reaction of the two fishermen was to paddle from the scene of the tragedy, they soon came back in the hope that they could retrieve the body. But they did not and had to return to camp to tell the sad news. Next morning, however, two boys, when looking for turtle eggs, found the body cast up on the beach.

136
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The bark painting, Pl. 115C, represents what is probably the hump-backed whale, which is known to frequent the waters of the Gulf of Carpentaria. The aborigines described this whale, which they called *dianmeri*, as a large fish, considerably longer than a canoe, which floats on the surface of the sea, a characteristic of the hump-backed whale. The curving lines on either side of the head represent the water parting as the creature swims along the surface, and the ovals down the central part of the body, the light-coloured skin markings of [825] this whale. According to my informants the whale, *dianmeri*, has two mouths in its tail, shown as ovals, with which it takes hold of a canoe to capsize it.

The Night-bird, Karawak, and the Opossum, Marungo at Cape Shield

*773

During mythical times the night-bird, *karawak* (unidentified) lived by himself at Milingimbi. One night, feeling lonely, he flew to the top of the tree in which he lived and called out to an opossum, *marungo*, whose home was in a hollow tree at Djerakoi, Cape Shield, near Blue Mud Bay, to come over and talk to him. But the opossum did not even reply. *Karawak* then flew to the Wessel Islands, then to Arnhem Bay and then to Cape Arnhem, at each place asking the opossum to pay him a visit, but the opossum made no sign of even having heard the night-bird. Finally *karawak* flew to the hollow tree at Cape Shield, the home of the opossum, and settling on the upper branches, again repeated his request. As soon as it was dark, the opossum left his nesting hollow and, climbing to the top of the tree, talked with *karawak* the whole night long. When, however, the first light of dawn came in the sky, the opossum descended the tree and went to sleep in a hollow limb. From that time until now, the night-bird, *karawak*, calls at night, the only time that the opossum will leave his home in the hollow tree and talk to him.

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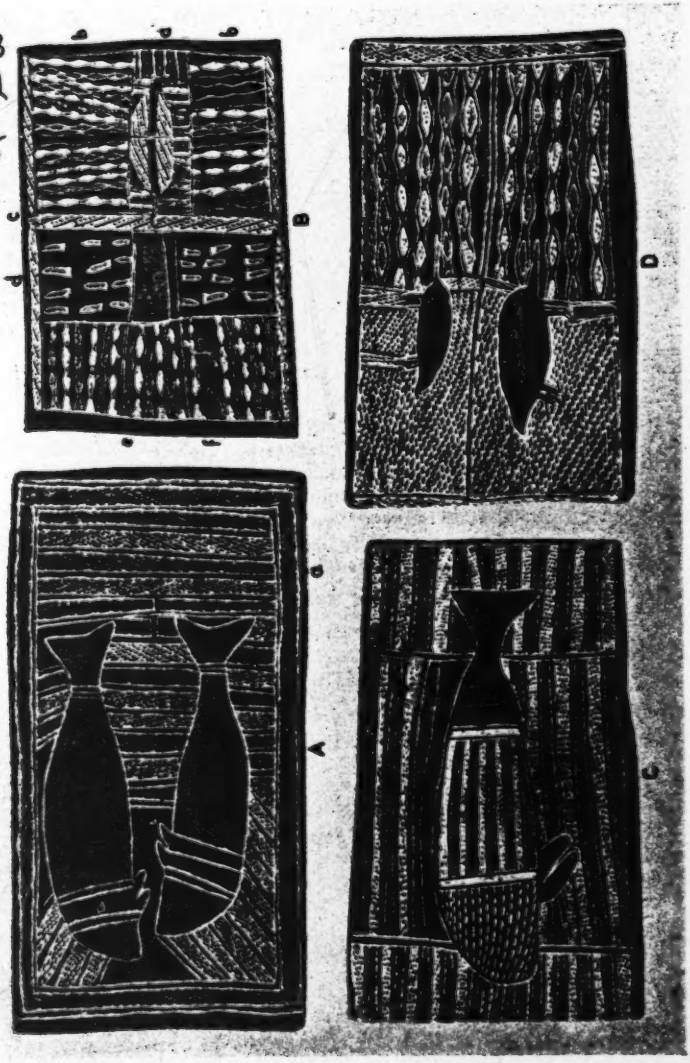

PLATE 116. Bark paintings, Yirrkalla
A, C The dugong, merinjunga B, D The bandicoot, warni-kura, and fire

3: Mountford E-5 (1948) 1956 OII7 Murngin OII7

ARNHEM LAND: ART, MYTH AND SYMBOLISM

7. DECORATED IMPLEMENTS AND WEAPONS

The aborigines of Australia gain much pleasure from the painting of their implements and weapons. The painted shields of Queensland[12] and the engraved boomerangs of northern New South Wales[13] are typical examples.

In Arnhem Land, where neither the shield nor the boomerang is used, it is the paddles and the spear-throwers which receive the attention of the artists. Warner[14] records that among the aborigines of Milingimbi, 'although the paints dissolve immediately in water, the natives often paint their paddles for the mere pleasure of decorating them and seeing their beauty.' The natives of Groote Eylandt and Yirrkalla paint both their spear-throwers and their paddles. At the latter place the blades of many of the paddles are covered with engraved or painted designs of totemic significance.

(1) Paddles from Yirrkalla

The Spirit Men, Maranatuer and Bunjinkum

Two brothers, *Maranatuer* and *Bunjinkum*, noted fishermen and hunters, once lived at Jumbara-pinja, a locality on the Pali-pali River which runs into Arnhem Bay.[15] One day the two *Mokoi* speared a particularly large *dua* turtle called *talibo* (possibly a logger-head),[16] which was so powerful that it towed them far out to sea before they were able to haul the turtle close enough to the canoe to kill it. This accomplished, they paddled back to their camp at Jumbara-pinja, disembowelled the creature and put it on the fire to cook.

Whilst they were waiting, *Maranatuer* looked toward the south and saw the dry-season wind, *timaru*, coming toward them. They were just congratulating each other about this, for the period of the *timaru* wind is the season of maturing fruits and underground tubers, when *Bunjinkum*, looking in the opposite direction, saw *Tjambuwal*, of the wet-season wind, *bara*, approaching. Not wishing to be caught between the two winds the brothers hastily ate the turtle, embarked in their canoe and paddled to Jarkala, an island midway between Elcho and the Wessels. Then, hearing that two other *Mokoi*, *Gunbiri* and *Kaiamburo*, friends of theirs, were living on an adjacent island, the brothers left Jarkala and went to stay with them. The four *Mokoi* still live on that island, although no aborigines have ever seen them.

Plate 144C, D is the obverse and reverse sides of the paddle.

The central vertical panel on Pl. 144C is the River Pali-pali, at Arnhem Bay, along which the brothers paddled their canoe when they were setting out to catch a turtle. The cross-hatched transverse bands on either side of the river indicate the rocks and sand-banks in its bed.

In the middle of Pl. 144D is the canoe and its occupants, *Maranatuer* being at the top and *Bunjinkum* at the bottom. The dark-coloured bands in panel *a*

12. McConnel (1935), pp. 19-68.
13. Davidson (1937), p. 23.
14. Warner (1937), p. 292.
15. Map, Fig. 57.
16. The logger-head turtle (*Caretta caretta*) is known to have reached the weight of two tons.

[Text continues on p. 450 452]

3: Mountford E-5 (1948) 1956 OII7 Murngin OII7

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either side of the carrying-bag of *Alinda* are yams the women collected. On the lower right is the whistling duck which the boys caught and ate. One of the two fish-brothers, *Birima*, is on the lower right and the other to the left of the burning hut. *Alinda* is shown on the upper right as a crescent, the new moon, and in the centre, the full moon, as a white circle with a black mark across it, symbolic of the burn he received.

The Milky Way

The aborigines of Milingimbi, as elsewhere in Arnhem Land, look upon the Milky Way as a celestial stream from which the sky people gather their food.

Plate 153C is a much conventionalized picture of the Milky Way. The central transverse design, with the zigzag line passing from end to end, is the main portion of the Milky Way, while the rectangles on each side are either isolated portions of the galaxy or branches of it. The circles with radiating lines are some of the bright stars within the Milky Way. The artist explained that the transverse design also represented the main stream of the heavens; the rectangles, branches and backwaters of that stream; and the stars, large fish and turtles living in it.

[136]

PLATE 154. The pearly nautilus

The Opossum-man, Kapali

During the early days of the world an old opossum-man, *Kapali*, his wives, two crow-women, *Tjakara* and *Wapanpri*, with their brother, *Inua*, lived on the sea coast south of Elcho Island.[13]

At the time the story opens old *Kapali*, having had a quarrel with his wives, paddled to Elcho Island, leaving the women and their brother behind in the

13. Map, Fig. 1.

3: Mountford E-5 (1948) 1956 OI17 Murngin OI17

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These men and their wives, who came from a land far away to the east, paddled towards the north-eastern shores of Arnhem Land. The men succeeded in catching a turtle and the women two large fish, *kouper*, which they loaded into their respective canoes.

When the *Tjirilpun* and their wives were nearing Cape Arnhem a heavy storm swamped both canoes and drowned all the people. The two canoes, the men, the women, the turtle, the two fish they had caught and a whale, *morokundja*,[19] from Cape Arnhem, are now in the sky, where they can be seen throughout the whole of the wet season. The men are the constellation of Orion, the women the Pleiades; the fish, the turtle and the whale are nearby unidentified parts of the Milky Way. The turtle, the fish and the whale are also large rocks in the sea near Cape Arnhem.

Plate 157B is a companion painting of the constellation of Orion and the Pleiades in which the whale and turtle are shown, but not the fish, *kouper*.

In Pl. 157D the T-shaped design (the constellation of Orion) is the canoe of the men, *Tjirilpun*, and the dots the men in the canoe; *b*, the rectangle below it, is the canoe of the wives of the *Tjirilpun*, the dots representing the women and the stars the two fish, *kouper*, and a turtle. The long design on the right is a whale, *morokundja*, from Cape Arnhem.[20] The cross-hatched areas to the left represent the waves which swamped the canoe, and that to the right, the wake of the whale.

The Scorpion

The aboriginal constellation of the scorpion is contained in the constellation of Lupus, the wolf. Lupus is situated near the tail of the European constellation of Scorpio.

Plate 157E illustrates the aboriginal star group of the scorpion in Lupus. The dots inside the main design, which is a highly conventionalized form of a scorpion, indicate the smaller stars within the main constellation.

The Magellan Clouds

The Magellan Clouds are believed to be the homes of two sisters, each of whom has a dog. The elder sister, *Nujai*, with her dog, *widji-git*, lives in the greater Magellan Cloud; the younger sister, *Nurni*, with her dog, *gurni-gurai*, in the lesser Magellan Cloud. During the middle of the dry season the elder sister, *Nujai*, leaves the younger because at one time *Nurni* went into the bush to defecate, but instead gave birth to three children. During the wet season, however, the younger sister persuades *Nujai* to return so that they can go out together gathering yams.[21]

[136]

19. Almost certainly the hump-backed whale (*Megaptera australis*) which frequents these waters.

20. Bark painting of whale, Pl. 106D.

21. At Yirrkalla, only the lesser Magellan Cloud is visible in the evening sky during most of the dry season (April to September). Both 'clouds' can be seen during the 'wet'. This accounts for the belief that the elder sister leaves the younger during the dry season.

6: Berndt E-5 (1946-1947) 1951
OI17 Murngin OI17

131 from the Church Missionary Society settlement at Groote Eylandt,
797 and 90 miles from the nearest Methodist Mission at Elcho Island. Apart from the Mission stations of Roper River, Oenpelli, Goulburn Island, Milingimbi, Elcho Island, Yirrkalla and Groote Eylandt, which fringe the great Reserve, there is no other European settlement, except the new base subsidized by the Northern Territory Native Affairs Branch at Ambu Kambu on Groote Eylandt.

136 The whole region is rich in indigenous foods and resources, particularly along the coast. The sea abounds in dugong, turtle, fish,
262 crayfish, shellfish, oysters, and crabs: inland, on the plains and in the jungles, there are wildfowl, emu, wallaby, kangaroo, and smaller animals, fruit, nuts, vegetables, berries, and a large variety of other bush foods, with quantities of fresh-water fish and crocodiles in the streams and rivers; and at times buffalo which have wandered eastwards from the Buffalo Plains west of Oenpelli. So plentiful is the food that, even in bad seasons, the quality may diminish, but rarely the quantity.

b Social Organization:

114 Before proceeding to our main study, it is necessary to outline
184 briefly the structure of north-eastern Arnhem Land society. The work of Professor Lloyd Warner is the most reliable in this respect, while
121 the Rev. T. T. Webb and Dr. Donald Thomson have written on the subject.[1] The reader will find sufficient detail in these for our present
177 purpose. But it should be borne in mind that the organization of Yirrkalla society, although basically similar to that of Milingimbi, is in many respects decidedly different. Dr. Warner viewed aboriginal social life through the eyes of Milingimbi informants, influenced by cultural trends from Cape Stewart and the inland, while the present writer views the same position from the Yirrkalla point of view, uninfluenced to any marked degree from the west, but responding to contact from aboriginal groups to the south and south-west (this is particularly apparent in our study of the Kunapipi cult).

101 These people of eastern Arnhem Land, from Cape Stewart to Blue Mud Bay, had a general term for themselves—the Wulamba group of clans, forming a tribe with a more or less common cultural background: natives outside this region, such as those at Groote Eylandt, called them the "Balamumu" confederacy. Balamumu may
614 be broadly translated as "those of the sea", that is, coastal people.
197 The varying dialects (termed *mata*, "tongue") of these clans (*mala*)
616

1. L. Warner, *A Black Civilization*, New York and London, 1937; T. T. Webb, Tribal Organization in Eastern Arnhem Land, *Oceania*, Vol. III, No. 4, pp. 406-411; A. P. Elkin, Marriage and Descent in East Arnhem Land, *Oceania*, Vol. III, No. 4, pp. 412-416; D. Thomson, *Interim General Report of Preliminary Expedition to Arnhem Land, Northern Territory of Australia*, 1935-36, Department of Interior, Canberra, 1936, pp. 31-34.

6: Berndt E-5 (1946-1947) 1951
OI17 Murngin OI17

532 773 Julunggul clan of snakes, but do not take part in the actual swallowing).

At last the Julunggul reach the *murlk*: the female snake puts her head into the aperture and swallows the elder sister and child (2 *a*), and then the male snake puts in his head and swallows the young sister (2 *b*).

When they have completed the swallowing, both stand erect with their heads away up in the sky; they try to "straighten" themselves up, resting on their bellies. All the younger snakes (9) are "very surprised because of the swallowing". It is probably these younger snakes with whom they hold the conversation mentioned in the first version.

They try to erect themselves still further into the sky ("like big rainbows"), but fall down because they have been eating the Wauwalak and the child. They fall over to 13, which shows the mark from their fall, in the shape of the sacred dancing ground. They try to stand up again, but "they are too happy, and talk" and fall over.

Then the Julunggul return along a track, 4, to Muruwul (1), where they live for a time. Later, they "walk" down this track, which is edged with stones;[10] they clear the track, casting the rocks (22) aside; they reach 15. There they vomit the Wauwalak (2). First the male snake vomits the young sister, then the female snake the older sister and her daughter. After this the Julunggul return along the track, 14, to 16, and rest at 17 (the head of the Julunggul).

At 18 is a *gundir* anthill, containing *nga:ti*[11] (white ant) termites (19: the drawing representing streams of ants), which come around to 15, and bite the Wauwalak and child. As soon as these are bitten, they awaken and become alive again.

The Julunggul look over to 15 from 17, and see that the Wauwalak are moving about. They return down 16 to 14 and reach 15, where again they swallow the Sisters and child, but do not vomit them a second time.[12]

The Julunggul go back to Muruwul (1) and continue living in its waters; they are still there to-day. Muruwul is surrounded by *gulwiri* "cabbage" palms; some stand at the water's edge, and some have their roots deep down in the waterhole itself so that only the top trunk and branches appear (23). 24 shows "spring water" running in all directions, from the rains caused by the Julunggul. The track marks of the Snakes (leading to 15), and the place at which they fell (13), are still to be seen. 20 shows the elder Wauwalak's afterbirth blood being washed down the Snakes' track (14) after the

10. Like the specially designed tracks of Julunggul, used in the *djunggawon*, *kunapipi* and *ngarrimuk* rituals.
11. In some versions these are described as "meat" ants.
12. Pythons still do this to-day: they eat something, swallow it, spew it up, lick it, and eat it again: this time they retain it.

8; Berndt E-5 (1946-1950) 1954
OI17 Murngin OI17

period to the present day. We shall follow the contact of the Aborigines with alien peoples, review the repercussions, and notice something of the effects upon their traditional culture.

The Arnhem Land Reserve, one of the largest in Australia, stretches east and south-east of Darwin in the Northern Territory, across to the western shores of the Gulf of Carpentaria.

The mangrove-lined coast on the north faces the Arafura Sea, separating Australia from the densely populated islands of Indonesia and New Guinea; and adjacent to it, running from west to east, are the islands of Croker, Goulburn, Wessel and Bremer (once Melville). Into the sea here and there flow large rivers, which further inland are usually banked by thick jungles of cypress, gum, stringy-bark, wild fig, bamboo, cycad, screw-palm (pandanus), and many other trees and bushes known only to the botanist and native. And tidal salt-water creeks flow among the mangroves, the home of sea-birds, crocodiles and sharks.

On the east the same almost monotonous coast-line fronts the Gulf of Carpentaria, dotted with such islands as Woodah and Bickerton, Winchelsea and Connexion, close to Groote Eylandt.

This great Reserve is bordered on the south by the Roper River; and on the west a natural boundary of rocky hills and sandstone halts the encroaches of the buffalo hunter, who has established himself on the fertile plains and swamps around the Adelaide, Mary and Alligator rivers. In the heart of Arnhem Land, gorges, mountains, swamps and rocky plains spread through country still partially unexplored.

Scattered through the Reserve are Mission settlements controlled by the Church Missionary Society and the Methodist Overseas Mission—Oenpelli, Croker Island (a "Half-Caste" settlement), South Goulburn Island, the Crocodile Islands (Milingimbi), Elcho Island, Yirrkalla, Groote Eylandt, and Roper River. To the south-west, Beswick Government Cattle Station and Maranboy Reserve can barely be said to be in Arnhem Land properly. Near the western border of Arnhem Land, in the so-called "Buffalo country", are two unoccupied Aboriginal Reserves, the Manasi and Woolwonga; and on the south, the attraction of neighbouring cattle stations (such as Mainoru and Roper Valley) has contributed to the decline of the local population.

8: Berndt E-5 (1946-1950) 1954
OI17 Murngin OI17

BACKGROUND

Once the term "Arnhem Land" was applied to the whole region east of Daly River, including the area about Darwin and Katherine, Melville and Bathurst Islands, and the "Buffalo country";[2] but since the Aboriginal Reserve was established, the name has been restricted to this. 131

All through this region, except in parts of the interior, there is no scarcity of food. In the rivers are fresh-water fish, goannas and crocodiles, in the sea and coastal bays many varieties of fish, shell-fish, turtle, dugong and (rarely) whales. At certain seasons the swamps and rivers, streams, waterholes and jungles, teem with wild fowl; eggs are plentiful, and (according to the time of the year) there is a choice of duck, goose, tern (or sea-gull), crocodile, turtle, emu and jungle fowl. Inland and along the coast there is an abundance of meat — kangaroo, wallaby, opossum, bandicoot, porcupine and edible reptiles. Moreover there are introduced water-buffalo, which abound in western Arnhem Land, and are seen today as far east as Yirrkalla, near Cape Arnhem. 136 262

Wild honey, fruits, berries, seeds, nuts and vegetable foods such as yam and lily roots and green lily stems, are available in season. And at the tail end of the monsoonal period the sea brings to this coast, particularly on the north-east, large supplies of drifting coconut and other edible nuts. 137 262

This, then, is roughly the position of the Arnhem Land Reserve, and it is upon the natural products of this country that the Aboriginal inhabitants have in the past primarily depended. Today, however, the Aborigine does not rely solely on his environment for subsistence. Long years of alien contact have developed in him a desire for introduced goods, a desire which was fulfilled to some extent when the Mission stations were established. 177

In order to examine the picture more closely, and to see the events presented in some historical sequence, we shall concentrate on the northern and eastern coast of Arnhem Land, and the adjacent islands within the Reserve. This coast-line and these islands experienced alien contact much earlier than did the inland boundaries, along the Roper River and the "Buffalo" plains. The actual interior of the Reserve, except for the bush country towards the Rose River in the south-east, the Arafura and Milin- 121 [177]

which is very far removed from the general picture of the Australian aborigine. 813 824

As the coast is approached, the country often becomes flat, and takes the form of wide plains through which the rivers flow sluggishly. On their estuarine reaches the rivers break up into innumerable arms, creeks and backwaters which are fringed with dense walls of mangroves. These brackish tidal reaches intersect the coastal plains, which are periodically flooded, becoming shallow lagoons which soon dry up, and leave miles of bare mud. This dries out and cracks so that it presents a tessellated appearance, and is often encrusted with deposits of salt. The estuarine reaches, tidal arms, and flood plains, yield very large quantities of food—chief of which are fish, for the capture of which many very specialised methods have been developed in Arnhem Land. Shellfish (*maipal*), including *laitjin*, (the wood-boring shipworm, *Teredo*) are also obtained in quantity in the mangrove zone. The shellfish are gathered at low water and *Teredo* are extracted from sodden logs uncovered at low tide, by splitting these with an axe and pulling them out by hand. 133 136 226

There are two well-defined seasons in Arnhem Land, the wet, or north-west monsoon, and the dry or south-east season. The "wet" extends from about December to March or April, when the wind is generally in the north-west quarter. During this period most of the annual rainfall—about 40 inches—occurs. The "dry" season extends from about April to November. At this season little rain falls except in far North-eastern Arnhem Land and for much of this period the wind blows steadily from the south-east. 132

This division of the year into two strongly-contrasted seasons has an important influence not only on the food supply of the people but also on their movements and occu- 221 805 813

602 they stand in a particular relationship, and for *yiritja* to
614 reciprocate for *dua*. The foregoing account applies also to
616 the organisation of most communal enterprises such as
[226] large-scale fishing drives, where the technique is related to local conditions, and therefore has a localised background. In such cases the practice is regarded as traditional, as a part of the pattern or heritage which has been passed to the clan by its founders, the totemic ancestor or ancestors, and which is therefore the special right or privilege of its mem-
[628] bers. Such traditional rights are invariably recognised and respected by other clans and are rigidly enforced, so that any violation may lead to punitive measures and even result in an inter-clan feud. And since the procedure is well understood by all participants, differences or disputes rarely, if ever, arise, and control or authority is not apparent. Most of these enterprises run so smoothly that only those who know the people and understand the social organisation would be aware of the identity of the man in authority.

224 At the conclusion of a hunting "drive" or grass burning
226 operation, or after the completion of a communal fishing
602 expedition, the game or fish is divided equally among those who took part. The group will then often sit down and cook or partially cook the food before taking it back to camp, when it is again sub-divided by each of the people according to his or her own family or kinship obligations.

224 While the burning of the grass yields an appreciable
[136] amount of animal food, of which the most important are kangaroos and wallabies among larger quarry, and such small game as bandicoots, opossums, "goanna" or Monitor lizards (*Varanus*), and snakes—it also has the effect of destroying the tops of food plants, which can then no longer be detected by the women. Burning must, therefore, be

11: Webb M-5 (ca. 1930) 1933 OI17 Murngin OI17

136 Though most of the snakes in this district are non-venomous, there are at least two varieties whose bite is deadly. These are the *darrpa* (Port Darwin brown snake) and the *bati kuririmiri* (death adder). The former of these is the more common along the coast, and from the bite of this reptile quite a number of deaths occur. Nothing approaching effective treatment for snake-bite has been discovered by these aborigines, and nothing more futile than that 755 followed could well be imagined. A man who has been bitten is made to sit down beside a fire while another man blows smoke through a hollow branch or dry pandanus stem on to him. As the smoke emerges at the other end of the tube another man carefully watches, and if in the smoke he sees the *mali* (non-material form) of a snake, it is known that a *ragalk* (sorcerer) has brought about the misfortune, and the man will die. If no such form is observed the man will recover. Frequently this ceremony is performed after the man has died, and so merely serves to corroborate a conviction which has already been definitely reached. In such a case imagination never fails to create the *mali* of the snake.

755 Another very curious method of procedure is as follows: If a 752 person has been bitten and he is able to capture the snake he does so by pressing a stick upon it just behind the head and then binding the snake to the stick at that point. With the snake thus held he returns to the camp.

There the snake is left until it is seen to pass all the blood it has extracted from the person bitten. When this occurs the person begins to recover, and soon all ill effects have passed away. The snake is now released not killed. If it were killed the person would undoubtedly die also.

755 For the poisonous stab of a catfish, stingray or other fish a live 752 *borok* (wood cockroach) is taken, held between the finger and thumb, and its inside is squeezed out over the wound. Another form of 278 treatment is to apply the leaves of the *rorgor*, a long trailing plant which grows in the beach sand. These leaves are heated on the coals and pressed upon the wound. For the bite of a *butungor* (scorpion), the creature itself is killed and rubbed on the bitten part.

755 Amusing in its childishness is the method of treating pustular 752 sores, boils, or swollen glands. A piece of charcoal is wrapped in a

15:Chaseling M-5 (ca. 1934-1936)1957
OI17 Murngin OI17

797 small enough; but at that time it was a big undertaking, for the only transport was by sailing-lugger, the coastline was low, unhealthy, and mosquito-ridden, and the Yulengor had a bad reputation. Progress was painfully slow, but today the mission has its houses, workshops, sawmill, church, and aboriginal cottages built from locally-milled cypress pine. Emphasis has been laid on agriculture, and in favourable seasons large quantities of tapioca and sweet-potatoes are harvested.

[136] Milingimbi will always be remembered for its sand-flies, and they made a permanent impression on the R.A.A.F. stationed there during the war. Fine cheese-cloth nets will keep them out, but the refugee then swelters in the heat, and painful experience drives one to defeat the pest with an ordinary mosquito net and dense clouds of smoke from cypress-pine sawdust. Sisters from the mission carry buckets of this smoking sawdust to church and worship in an enveloping smoke-haze. Mosquitoes occasionally make it impossible for Yulengor to work in the gardens, and missionaries were driven from their workshops till they resorted to the pungent sawdust smoke-bucket. Each goat-herd had its own smoke-fire at night and another was lit under the fowl roost, otherwise the hens complained all night and refused to lay.

In charge at Milingimbi was Theodor Webb, a staunch and practical Christian. He was now turning his hand to one of the many jobs that fall to a missionary, the rescuing of horses bogged in a waterhole. He had been a blacksmith before entering the Church, and when he came to Arnhem Land he found plenty of scope for his muscular gifts in clearing land, and in fencing and ploughing on this isolated settlement. He was making it possible for Stone Age men to settle on the island, where he taught them to cultivate the soil, produce most of their simple requirements, and make contact with Christian ideals and modern civilization. He

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invited me to go with him for the horses, but warned me to keep my eyes open for green tree-ants. I looked in vain for the ants till Webb pointed to a ball of leaves on the tree near my head. These were green tree-ants at close quarters. 797

Nests of the green tree-ant are as big as a man's head and are made from leaves bound with larvae-silk. Larvae spin the silk to cover themselves, but workers divert the silk for nest-making, drawing the leaves together and weaving the living larvae-shuttle backwards and forwards till the foliage is bound with silken thread. Webb held his finger near the nest, and the warrior ants attacked; they all seemed to be soldiers, for they climbed on top of each other and fired formic acid. Months later I saw Yulengor using this acid for coughs and colds, first crushing the ants, soaking them in water and sipping the mixture. 136 278

We found the horses bogged in the swamp. Webb said they became bogged when rolling in the mud to coat themselves for protection against mosquitoes. I suspected a local mosquito 'yarn', but on the way home saw a dozen brumbies coming from the mud-flats, and all completely mosquito-proofed for the night. 000

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CHAPTER TWO

Exploring

133 It has been called wildest Arnhem Land, and thousands of square miles of it have never been seen by civilized man. For months we combed its coastline, creeks, and valleys, searching for a site for the new station, but strange as it may seem, a suitable site was not discovered, although we had three hundred miles of coastline from which to choose. For that matter, I have never seen any site in Arnhem Land providing all the essentials for a self-supporting community. At least one requirement was always missing. When a rare pocket of rich jungle soil with palms, ferns, tangled vines, and tall shady trees was found, then the jungle was low-lying and useless as a building site. If an anchorage, where fresh water and building areas were ideal, then not a square foot of good soil was to be seen.

Everything of value in the country has been eroded and washed into swamps or out to sea. That over thirty thousand square miles of it can be so desperately poor, and yet have an [132] annual rainfall of from forty to seventy inches, puts the land in a class by itself. Sand-ridges, mangrove-swamps, and laterite headlands make it a monotonous coastline. Most swamps are impenetrable because of useless mangrove [136] jungles, sheltering crocodiles, crabs, and flying foxes. Tree-climbing fish (*Periopthalmus*) swarm in salt-water jungles, and at the first sight of danger hop from the water to the roots and low branches of trees. Gravel headlands extend inland to low hills devoid of useful timber and grass. High mountains there are none, but in central Arnhem Land a sandstone plateau is lacerated by countless abysmal

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water-worn canyons—a wild, desolate region where only goannas find enough to eat and white cockatoos screech through the gorges.

Nevertheless, I found it fascinating to fly over this country —no one would toil through swamps and humid jungles if it were possible to fly over them in the coolness and comfort of a plane. Arnhem Bay is typical coastal country, low-lying and well-nigh impenetrable, but during the war years I grew accustomed to looking at it from R.A.A.F. Catalinas and watching its panorama unfold in a succession of meandering grass-choked creeks and swamps, with a narrow ribbon of jungle dividing them from the waters of the bay. White cockatoos circled over black clumps of jungle, white ibises fished in the shallow swamps, and egrets waded on the mudflats and made it appear like a garden of marguerites waving in the breeze.

Even the weather is surprising, and the climate accounts for the poverty of the country. Seven or eight months of the year are cool; that is when the dry, south-east monsoon blows in from the Pacific. Wind and warm sun parch the ground and bush fires rage over the hills and sandy valleys, so that for weeks the sky is hidden in smoke haze and the setting sun is a blood-red ball. Yulengor start fires when hunting and cannot pass dry grass without firing it. It is a common practice for them to strip five or six feet of stringy bark from a tree, twist it into a stiff length, light one end and carry it like a walking stick, stabbing the fiery end into dry grass by the side of the track.

By October the winds are calm, humus has been licked up by the fires, a burning sun completes the destruction, and the country is a barren ash-heap. December brings a change in the wind and, heavily laden with moisture, it blows in from the north-west, flooding the country with torrential rain of from forty to seventy inches. Its immediate effect on dried-out Arnhem Land is devastating, as loose soil, sand, ash, and

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134 humus are swept into the swamps or out to sea. The residue
132 from this fierce erosion is the typical clay, gravel, and stone of Arnhem Land. Nevertheless, with the first cloudbursts, the harassed country makes an astounding recovery. In an
137 incredibly short time a thick growth of high coarse grass
136 covers the rocky hills and sandy valleys, yams spring to life on gravel slopes, and animal and bird life is rejuvenated; red kangaroos, agile wallabies, opossums, mice, snakes, goannas, emus, jungle fowls, ducks, geese, spoonbills, herons, brolgas, and many more in kind grow fat and lazy from the
132 lavish hand of nature. But the vicious circle is not to be avoided. Winds swing back to the south-east and the nightmare of poverty again creeps over the land.

123 Exploring in the north-east brought us into contact with most of the scattered hordes so frequently referred to as the 'Killers of Arnhem Land'. In early September we were in the English Company's Islands, with the crew on the look-out for Yulengor; and when they saw a thin column of smoke on a beach, conjecture was rife as to who was in the camp. A dozen men and boys paddled out in their big dug-out canoes and came aboard somewhat diffidently. However, they were soon squatting round the hatch exchanging news with the crew, all the time passing the one
[276] and only bush pipe backwards and forwards and drawing deeply the first tobacco smoke they had tasted for months. Most of them were strong and well developed, with bushy hair, but not too clean. As a concession to the white man
[291] they had donned strips of bark on string waistbands. They were reserved, but interested in all we did, and gladly accepted a couple of tomahawks, wire for fish-spears, and fish-hooks.

628 After the visitors had cast-off in their canoes, a crew-boy
684 mentioned that our visitors had just returned from killing a
682 man in revenge for the death of another in the hills behind our anchorage. It was a long story of intrigue and murder,

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running away, and two youths chased him into the jungle. One of them threw a spear which cut off his ear, and a second went through him. The avengers shouted to the horde, and one by one the men plunged their spears into the body and left it there, exposed and deliberately mutilated.

It was after midnight when the men finished this story of stark Stone Age justice, and I left them on the beach to return to the lugger to switch on a portable radio for an assurance that this was actually the twentieth century.

The rest of the trip was boisterous, with head winds and heavy seas, till we entered Port Bradshaw and beached the boat for repairs. Long ago, Macassar traders fished here for trepang, and East Indian tamarind trees fringing the shoreline marked their camps. I came across a curious formation of stones, and could make nothing of it till months later I read in Matthew Flinders's diary that in 1803 he saw similar formations in Blue Mud Bay. He could not solve the riddle till he met the Macassars in the English Company's Islands, where Pobasso, their chief, told him that the Malays had made the stone fireplaces to boil and cure their bêche-de-mer.

Bêche-de-mer is known locally by its Macassar name of trepang. Scientifically it is termed *Echinodermata* or 'Spiny-skinned'; seven hundred species are known to exist, and the few varieties in Australia range from nine to eighteen inches in length. They are rough skinned and look like lumps of rubber or bread rolls, with ridged bands extending around the entire length. Trepanging is the oldest industry in Australia, for it seems to have been at its height soon after Captain Cook landed at Botany Bay. Malay traders gathered it for the Chinese market. It must be cured for export, and the process is much the same as that used by the Malays. It is gutted, boiled in a strong solution of mangrove bark and sea-water, smoked over a slow fire, dried in the sun, and bagged. Chinese regard it as a delicacy and

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224 I found their methods of kangaroo hunting to be the most interesting of all, and I know the men would agree with this estimate. Kangaroos are comparatively easy prey during the wet season, when long grass covers the hillsides. A hunter [302] often smears white clay over his head, for clay is an effective camouflage, and a man so daubed is scarcely distinguishable from burnt-off tree stumps with their occasional unburnt patches of white. The big hunt is carefully planned, and there are intricate methods for driving, ambushing, and trapping kangaroos when the rains are over and the herbage is dry. Wide valleys or plains are selected for the hunt, and [372] a patch is burnt out in the centre. Meanwhile, three or four men run a wide circle of fire around the burnt-out area, and hunters with spears and firesticks light many fires inside the outer wall of smoke and gradually close in toward the centre, leaving behind them a wall of roaring flames and blinding smoke which terrifies and drives all the small animals, reptiles, and kangaroos into the central death-trap where they are speared.

225 Most Arnhem Land Yulengor hunt for sea-food both on [177] shore and from canoes. Metal has been filtering into the country for two centuries, and this has made hunting easier. [411] Once they fished with pronged hardwood spears and made wooden harpoons for the soft-skinned green turtle, dugong, [325] and porpoise, but they now grind metal harpoons that are able to pierce even the hard carapace of the shell-back turtle. For turtle hunting, a harpoon is tied to bush rope and [411] fitted into the end of a long spear haft, and when a turtle is sighted on the surface the canoe is paddled quietly toward it with a man standing in the bow ready for the strike.

Dugong are hunted at night, and canoes skim around the sea-grass feeding-grounds till an animal is sighted and harpooned. The flesh resembles pork, and the animals sometimes measure up to twelve feet in length and weigh half a ● 136 ton. A dugong suckles her calf while clasping it to her with

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one flipper and swimming with the other. It is said that ancient mariners, seeing dugong for the first time, framed the original story of the mermaid. 136

Methods of cooking meat and fish are simple, though not very thorough. Snakes are coiled and cooked in the ashes, and small animals, birds, flying foxes, grubs, and snails are roasted in the coals. Turtles, dugong, porpoise, and kangaroo are sometimes jointed and packed on hot stones; sheets of paper bark and sand are piled on top, and a small hole is left at the apex of the mound for appetizing steam to escape. However, hungry hunters often will not wait for women to go to all this bother, and they slice the meat and eat it after holding it near the hot ashes till the surface is slightly singed. 252

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victim will surely die. Hanging the reptile is part of the cure, and it is thus held hostage for the life of its victim. If the man recovers, the snake is released. It must not be killed even after the man's recovery, for if it were killed the victim would suffer a relapse and die.

Young Geitbapoi was bitten by a snake, and his mother saved his life by capturing the snake and hanging it in a tree. The snake appeared to be dying; the boy's condition also grew worse, and death was expected. But the snake passed a lot of what was said to be the boy's blood, and this was incontrovertible evidence of the reptile's recovery, and likewise its victim's. Therefore the snake was released, and in an hour or so the youth stood up and walked.

Power to kill by magic belongs to an evil witch-doctor known as a 'raggalk', who waylays the man and causes a deep sleep to fall on him so that he may squeeze blood out of his heart. Despite this, the victim lives an ordinary life till the raggalk decides to finish his work by sending a snake to bite him. As with ordinary snake-bite, the raggalk's victim tries to find the snake, to effect a recovery, but such a search is never successful, for the raggalk whisks away his instrument of death. For this reason, when a snake cannot be found after it has bitten someone, the injury it has inflicted is attributed to a raggalk. A marrnggit, or benevolent witch-doctor, can prove that a man has been bitten by a raggalk-snake by lighting a small smoke-fire, seating the man near it and blowing the smoke over him through a hollow pandanus palm-stem. In the curling smoke he sees the spirit of the raggalk emerging from the victim; he announces the name of the killer, and adds that nothing can save the life of the man.

Scorpions, stingray, and jellyfish are numerous, but their stings, though extremely painful, are seldom fatal. Scorpions attack women as they dig for yams among the stones on hillsides, and it is said that the groin or arm glands swell

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752 painfully when a limb is stung. They apply a counter-irritant in the form of a string ligature above and below the wound. Further treatment is given by lighting a fire on wet sand and applying the heated sand to the spot. A third popular theory is to catch the scorpion and squeeze its body juices over the wound.

[136] Stingrays in warm northern waters vary in size from twelve inches in diameter to several feet. I well remember the night when we were two miles off-shore in a canoe and were startled by the splash of a huge black monster surging from the sea some twenty or thirty yards away. Waves from its crash tossed the canoe, and the boys did not allow closer inspection, but madly plied their paddles, for fear of an attack. A wound from an ordinary stingray is extremely painful, and I have known the poisoned barb to be driven through the thickest part of a man's hand. A black wood-
[825] beetle, like a cockroach, forms the basis of the cure, and is squeezed into the wound; later, several of the beetles are pulped and plastered over it. In serious cases the plaster is mixed with the crushed tubers of a trailing vine from the sand-dunes. Simpler and speedier relief is obtained by applying hot moist sand.

[136] The Portuguese man-o'-war is well named, and is the
[165] worst variety of jellyfish in the Arafura Sea. It has caused the deaths of many children. Youths normally able to bear
[152] excruciating pain fall on the beach and scream in agony after brushing against a Portuguese man-o'-war. Its long trailing feeler, invisible in sea-water, carries many small cells charged with poison darts on springs. Delicate triggers hold these in position, so that once the feeler touches an object, the triggers automatically release their paralysing darts. Small fish are paralysed and drawn up to be consumed. Feelers can be quickly rubbed off the body with sand, and probably the Yulengor treatment of applying hot sand does this and also affords some slight relief.

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Sharks attack nomads, and inflict shocking injuries; crocodiles crush arms and legs. Bad wounds from these sources are treated with yellow hibiscus bark beaten into a pulp and applied every few days. In the case of bone-fracture, a few thick grass stalks are bound on as splints, and the hibiscus pulp is applied on the outside. The bark pulp is left on a wound till the pain and odour demand attention, and then both splints and pulp are renewed.

Even a simple break in a bone probably knits crookedly; when a compound fracture is suffered, if gangrene does not kill the patient, pieces of bone work their way out of the limb. Wounds become so painful, that further applications of the irritating grass and bark cannot be borne, and they are then left to Nature to flood and cleanse them with copious streams of pus. I saw one hunter who had sustained a compound fracture above the wrist from a crocodile. After a long course of Yulengor treatment, six inches of his forearm bone had dropped out, and the wound had healed. But thereafter he was unable to control his hand, and it flapped uselessly by his side.

An adult with a stubborn open sore will search at low tide for a large anemone, and place the sore in the centre of the soft mass. The anemone automatically contracts, and the patient then tears himself away and has a new, clean, bleeding wound which may heal without further treatment. A child suffering from stubborn sores is treated by its mother, who collects slug-like shellfish (*Onchidium*) and squeezes the juices into the sore. I am told that the juices cause a stinging sensation, as iodine does.

Back injuries are ineffectively treated by tying bush rope tightly round the body in the region of the pain, and intense pain is eased by applying hot wet sand. 'Charlie Sitdown' became paralysed from the hips down, but his misfortune did not prevent him from becoming influential and astute in his dealings. In time he obtained three or four wives and

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CHAPTER SIXTEEN

Two Women and a Serpent

Long after the creative Ancestresses disappeared into the west, two other vague heroines came from that direction. It is not known where they came from, except that their birthplace was in the darkness beyond the setting sun. They came to discover the land from which the sun rose and to explore this world of light. 773*

By the time they reached Arnhem Land their journey had developed into a triumphal march from one sacred site to another. They finished the work of the Junkgowa by distributing arts and crafts and animals. They also made a new palm-leaf dilly-bag and manufactured the first stone axe-heads, as well as providing two or three quarries from which they are now chipped. Bush food was scarce before their time, and they distributed edible animals and made the popular 'sugar-bag' or native bees' nests. These minute stingless bees build small nests in hollow trees. Nomads cut an opening and scoop out a pint of wax and watery syrup mixed with chips and scores of bees. They eat the lot. Families camp in the hills for a week or more, and live on 'sugar-bag', with land-snails, goannas, and small animals to give some variety to this diet. 262 [136] [227]

The Women came one day to a high circular hill covered by dense vegetation and inhabited by every known bird, reptile, yam, and fruit. It was an ideal camping-place and they stayed there for a long time eating their first raw meat and naming and distributing the animals and birds to the eight marriage-subsections or 'malk'. It will be recalled that every child is born into one of these eight malk and can 773* [617]